TABLE OF CONTENTS

Notice 4

License Notice 5

Safety Information 6

1. Before You Begin 8

1.1 Features 8

1.2 Accessories 9

2. Controls and Functions 10

2.1 Front Panel 10

2.2 Rear Panel 11

2.3 Remote Control Unit 12

3. Connections 14

3.1 Connecting to TV 14

3.2 Connecting to Dish 17

4. Menu Overview 19

4.1 Menu Instruction 19

4.2 Menu Help 19

4.3 Menu Structure 20

5. Menu Operation 22

5.1 First Installation 22

5.2 Installation 23

5.3 Option 28

5.4 Channel 31

5.5 Advanced 32

5.6 Status 34

5.7 PVR 35

6. Viewing General Information 36

6.1 Banner Information 36
6.2 TV & Radio changing 37
6.3 TV or Radio Channel Lists 37
6.4 Option 41
6.5 A/V+ 42
6.6 Fav 43
6.7 A-Z 43
6.8 EPG 44

7. PVR 45

7.1 File List 45
7.2 PVR Banner 47

Additional Information 51

A.1 Troubleshooting 51
A.2 Technical Specifications 52
A.3 Glossary of Terms 54

Notice

- Read this manual carefully and make sure you understand the provided instructions. For your safety, check what the result each action will be.

Warnings, Cautions and Notes

Throughout he whole manual, pay special attention to the following marks that indicate hazardous situations.

Caution

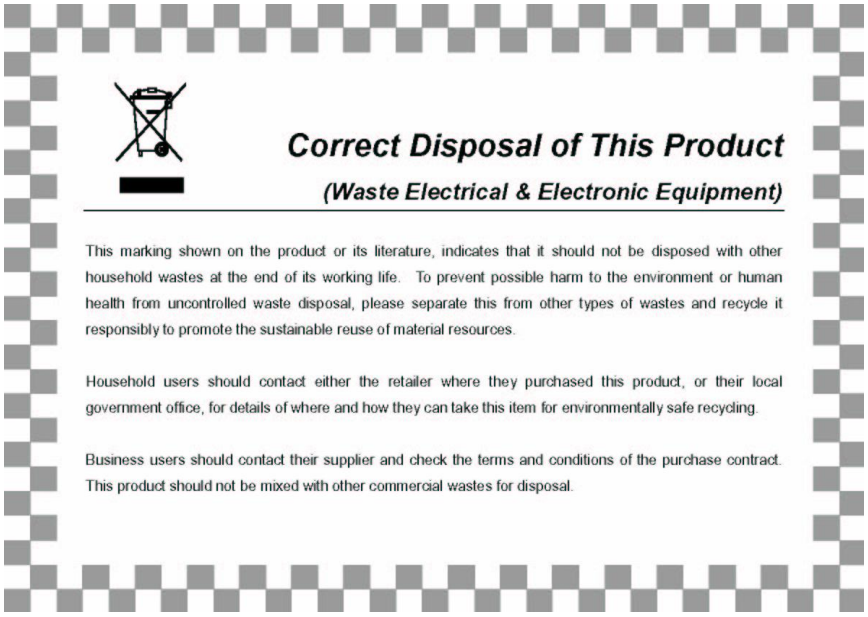
Indicates a situation which, if not avoided, could damage the equipment or apparatus.

Warnings

Indicates a hazardous situation which, if not avoided, could result in serious injury.

Note

Indicates additional information to the user to make the user aware of possible problems and information of any importance to help the user to understand, to use and to maintain the installation.


Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)
This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

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ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX,Inc. This is an official DivX Certified device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video.

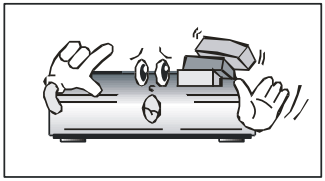
ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content. To generate the registration code, locate the DivX VOD section in the device setup menu. Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

"DivX Certified® to play DivX® video, including premium content"

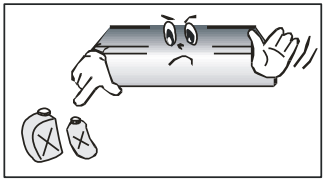
Safety Information

This digital satellite receiver has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

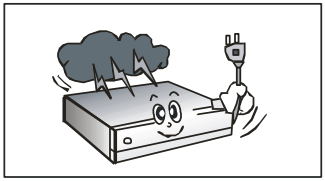
Safety Instructions and Precautions



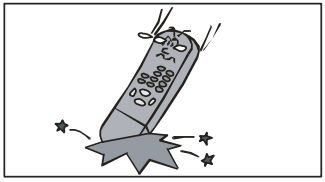
Avoid placing heavy things and blocking ventilation passage.
(Passage blocking can cause fire)



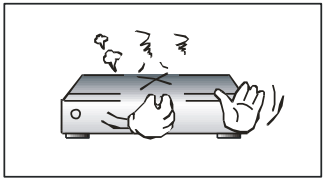
Avoid scrubbing the surface with Benzene or Volatile gasoline. Color can be damaged.



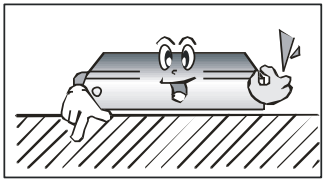
Leave the power and the antenna off for the ling absence or during thunder storm.



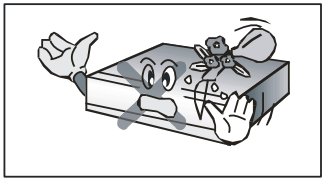
Avoid dropping and damaging Remote Control Unit.



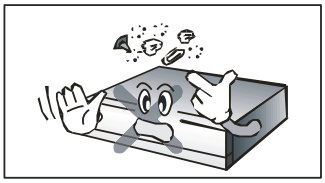
If there is smoke or burning smell, turn off & un-plug the set immediately. Contact your local repair center for advice.



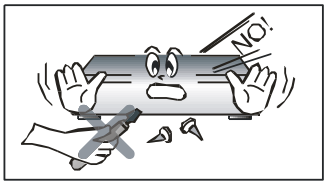
Avoid placing the set on slippery and slant surface.



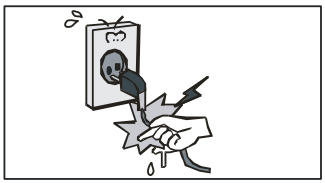
Keep away from the water.



Clear off the dust. Dust or Metallic particles inside the set can cause fire and electric shock.

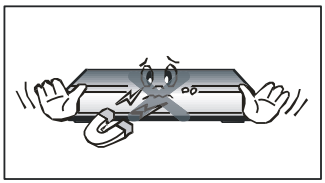


Avoid dissembling and assembling. Do not open the set.

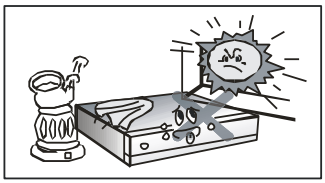


Do not snatch the cable to plug out.

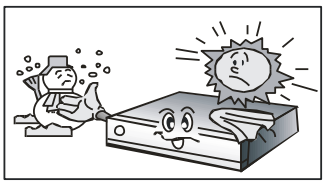
Do not move the set while power cord is plugged in.



Keep the distance from Magnetic items and Audio Speaker.



Place the set with the good ventilation and away from the direct sunlight and humidity.



Avoid the temperature of over 30C and below 5C.

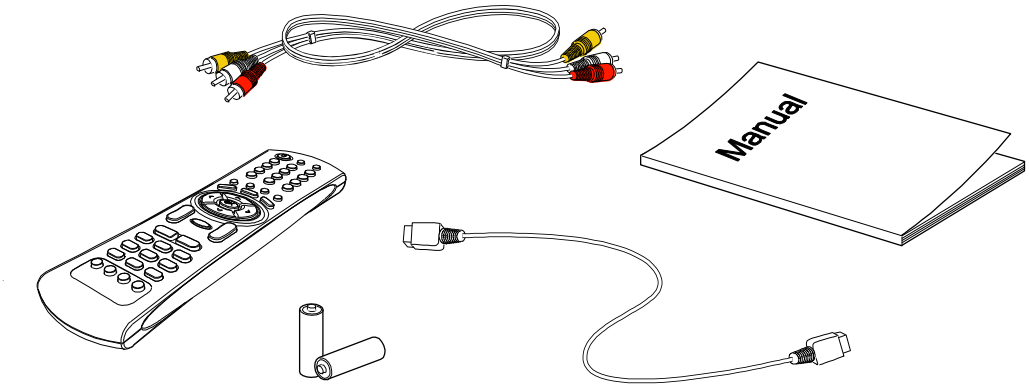
1. Before You Begin

1.1 Features

- Brilliant On Screen Graphic
- MPEG-2 Video(MP@ML), MPEG-1 Audio Layer1, Layer2, H.264/AVC, Dolby Digital
- LNB Controlling Logic
- SCPC/MCPC Receiver from C/Ku-Band Satellites
- Digital Tuner with Loop-through
- Wide Symbol Rate 1~45Mbps & Frequency Input 950~2150MHz
- DiSEqC 1.2 Supported
- S/PDIF Dolby Digital audio
- User friendly OSD menu with full function
- Vector Font and 256 color GUI(Graphic User Interface)
- Multi-language menu
- Variable aspect ratio(4:3, 16:9) with Pan Vector or Letter Box
- EPG(Electronic Program Guide) for On-screen Channel Information
- Teletext and Subtitle supported(VBI & OSD)
- Installation by Easy Setup Guide
- Capacity for storing multi channel (8000 channels, 1000 transponders)
- Favorite Channel and Parental Lock Function
- HDMI (High Definition Multimedia Interface) supported
- DVB-S2 Supported (QPSK, NBC-QPSK, NBC-8PSK)
- USB 2.0 Host supported
- PVR capable with External HDD via USB 2.0 port
  - Recording / Playback in STB or PC
  - S/W / Channel data transfer through USB 2.0 port
  - Bookmarking & jump function

1.2 Accessories

- Component cable
- HDMI cable
- Operating Manual
- Remote Control
- AAA dry cell batteries x 2

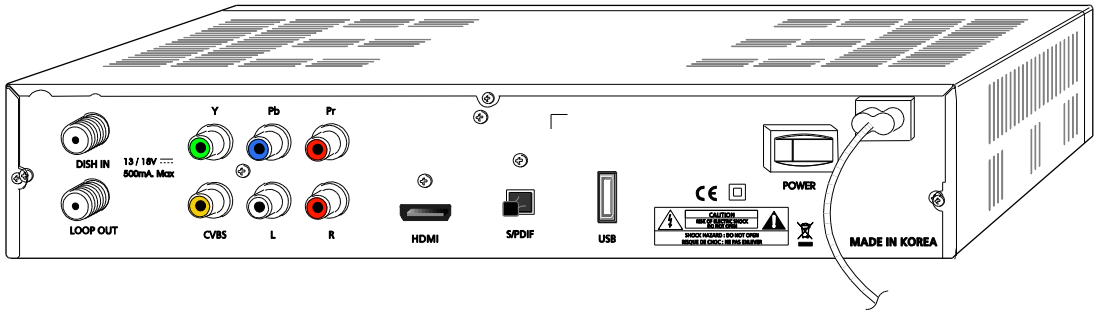


2. Controls and Functions

2.1 Front Panel

Item	Description
1. Power Button	Turn the receiver On/Off.
2. Volume Up/Down Buttons (◀/▶)	Increase & decrease the volume levels in viewing mode and changes settings in menu mode.
3. CH Up/Down Buttons (▲/▼)	Change channels in viewing mode and moves the cursor up/down in menu mode.
4. MENU/OK Button	Show the Main menu in viewing mode. Activates the highlighted menu item in menu mode.
5. Exit Button	Exit from the current menu or cancels the current progressing operation if applicable. Select the video resolution while watching the program.
6. Common Interface slot	Insert the Conditional Access Modules (CAM) when watching the scrambled services

2.2 Rear Panel



Item	Description
1. DISH IN **13/18V 500mA Max**	Connect the satellite dish.
2. LOOP OUT	Loop Out is an output port of the DISH IN signal.
3. YPbPr OUT	Using standard A/V cables, these jacks connect Y/Pb/Pr(Green, Blue, Red) to a TV or VCR that accepts HD component video input.
4 CVBS OUT	Using standard video cables, these jacks connect CVBS(Yellow) to Video of TV or VCR.
5. Stereo Audio OUT	Using standard stereo audio cables, these jacks connect L/R(White, Red) to Audio of TV or VCR.
6. HDMI OUT	Connect HDMI input of TV or PC monitor
7. S/PDIF	Connect the S/PDIF to a Dolby Digital decoder for Dolby Digital audio.
8. USB	USB 2.0 Connector
9. POWER Switch	Turn the STB ON/OFF
10. Electric Inlet Lead	90~240V AC(Auto-selectable),50~60Hz. Make sure to check the power specification.

2.3 Remote Control Unit

All receiver features can be controlled with the remote controller.

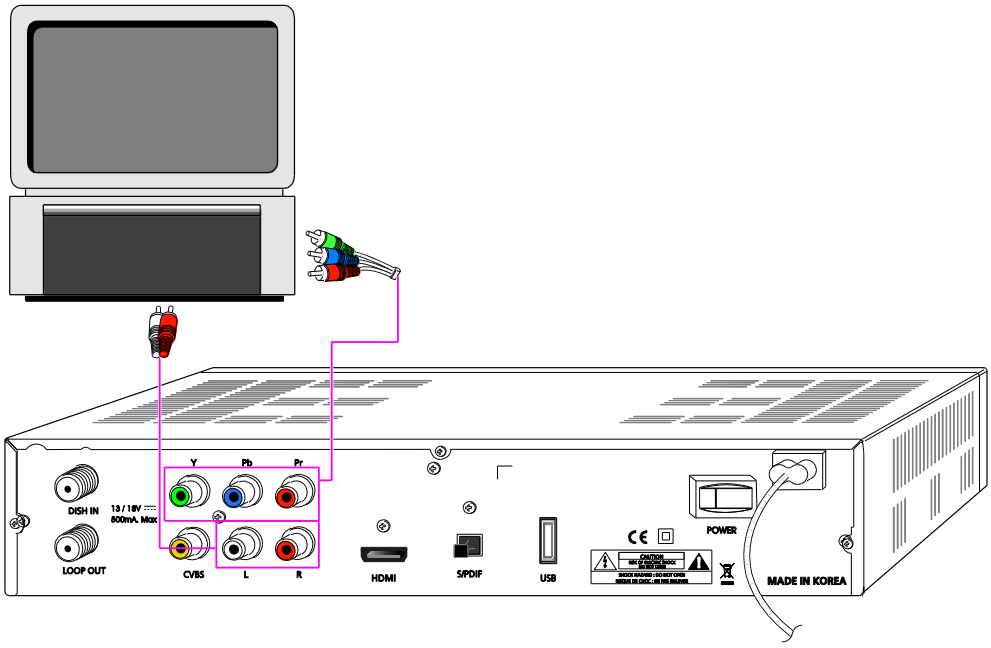
Button	Description
1. POWER	Turn the receiver On/Off.
TV/Rad	Switch between TV and Radio.
TV/STB	Switch between TV and STB mode.
2. NUMERIC Buttons (0~9)	Select channels or can use as an alphabetic search key in the sorted channel lists.
BACK	Move to the previous channel.
MUTE	Turn the sound on/off.
3. OPT(●)	Select the option such as Audio Language, Teletext Language and Subtitle Language.
A/V+(●)	Select video mode, audio mode and resolution.
Favorite (●)	Select the group of satellite or favorite.
A-Z (●)	Sort the channels automatically in alphabetical order.
MENU	Display the main menu of the receiver and come out from inner level to viewing mode(Exit all).
EPG	Show the TV/Radio Channel guide.
Information	Show the information of the Banner and EPG.

Button	Description
4. ◀/▶ (◀/▶)	Move left/right or change settings in menu mode.
▲/▼ (▲/▼)	Move up/down in menu mode.
OK(OK)	Confirm the choices and/or selections the highlighted menu item. While watching TV or listening to Radio, press the OK button and the channel list will appear.
5. V+/-	Change the volume level in viewing mode.
P+/-	Change channels in viewing mode. Selects other menu pages with sub-pages.
EXIT	Go back step or exit from the menu of the receiver.
6. PAUSE	Pause playing mode, recording mode and Time Shift.
PLAY	Play the recorded file.
7. REW	Rewind playback.
STOP	Stop playing mode, recording mode and Time Shift.
FF	Fast forward playback.
REC	Record the channel.
SLOW	Playback in slow mode
LIST	Display the filelist.
A-B	Set the block to repeat, copy and cut.
MARK	Set the bookmark.
JUMP	Jump to bookmarked point.
8. F1	Play the next DivX file in the DivX file list when playing a DivX content.
F2	Play the previous DivX file in the DivX list when playing a DivX content.
F3	No function
SLEEP	Turn the STB off after minutes set.

3. Connections

3.1 Connecting to TV

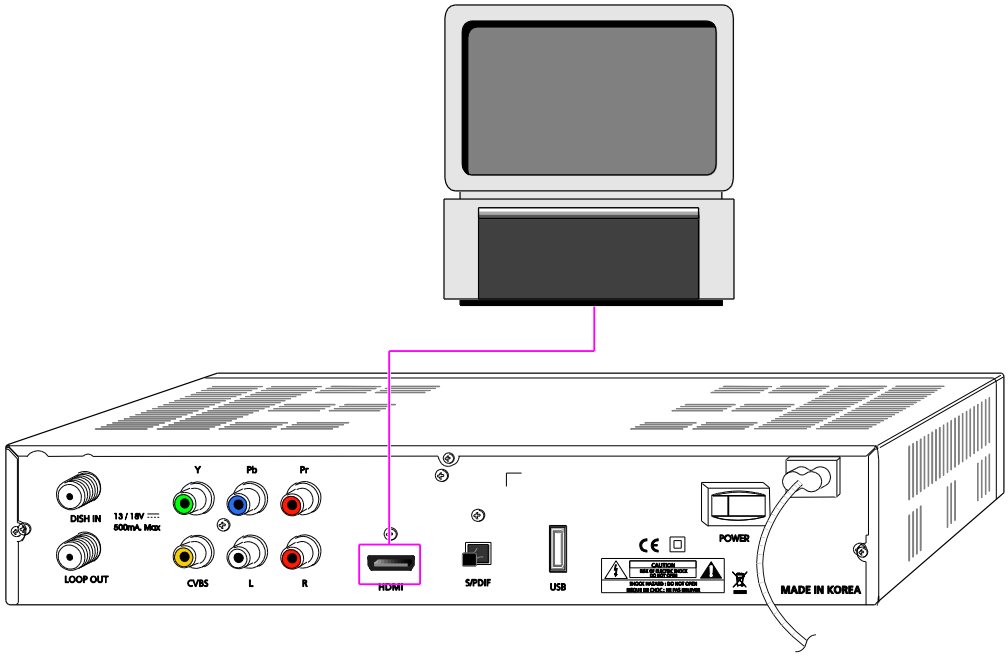
<Connecting to digital TV which can support HD resolution (1080p,1080i,720p,576p and 576i) using YPbPr port>



1. Connect STB's YPbPr out and audio L/R out to YPbPr in and audio L/R in of TV.

2. Set STB's video output mode among 1080p, 1080i, 720p, 576p and 576i using 'A/V+(●)' key of remote controller.
   Please check TV's user manual for detail connecting method of the YPbPr input port.

<Connecting to PC monitor or digital TV which has HDMI input port>

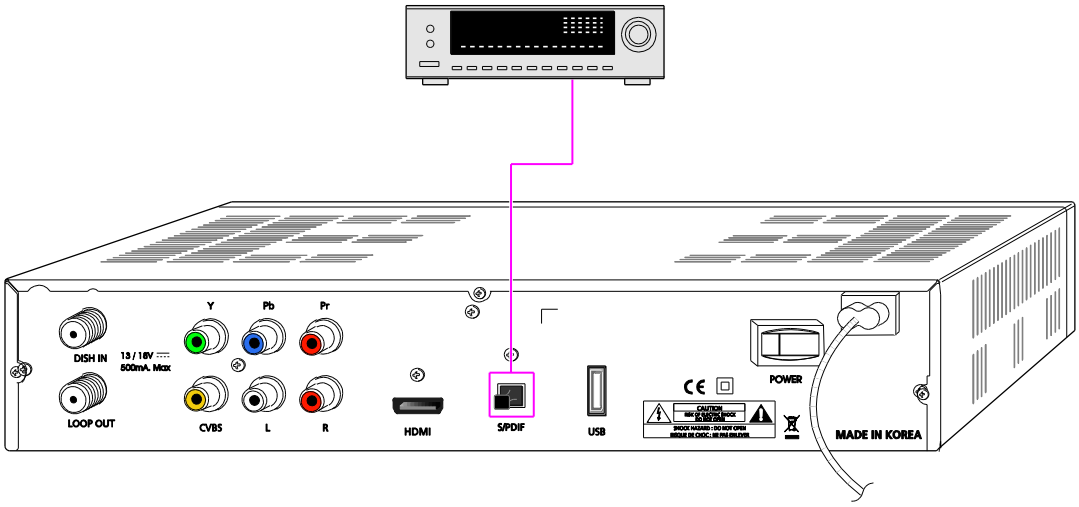


1. Connect STB's HDMI out and to HDMI in of monitor or TV.

2. Set STB's video output mode among 1080p, 1080i, 720p, 576p and 576i using 'A/V+(●)' key of remote controller.

For the best access to HD programming at the highest available resolution, use this connection method.

<Connecting to A/V receiver (Dolby digital amplifier)>

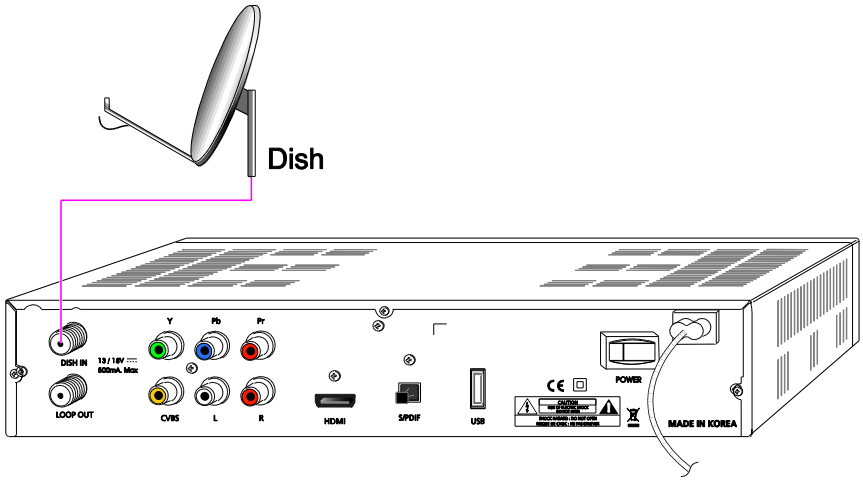


1. Connect STB's optical digital audio out to A/V receiver.
2. Set STB's audio out mode to 'Digital Audio'.

3.2 Connecting to Dish

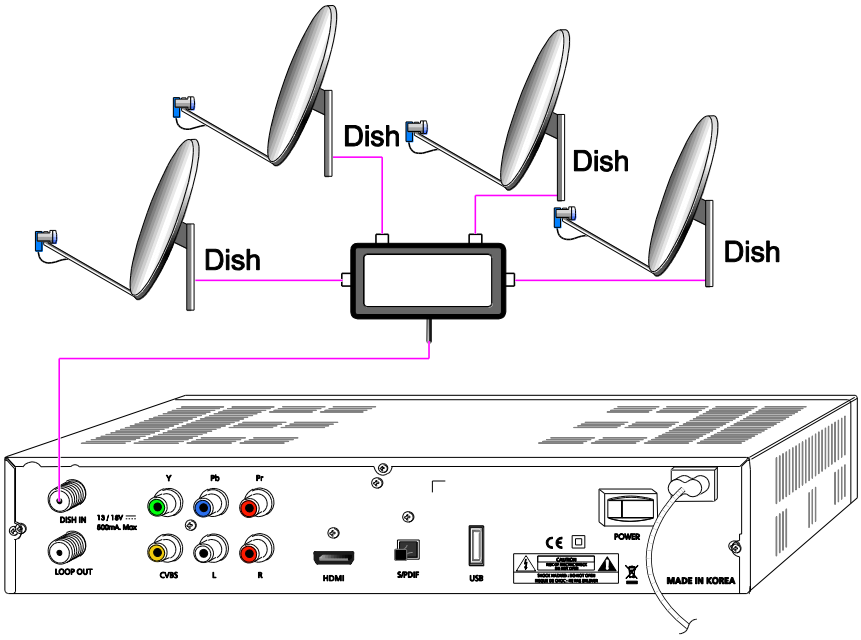
<Dish>

Connect the Satellite antenna cable to DISH IN.



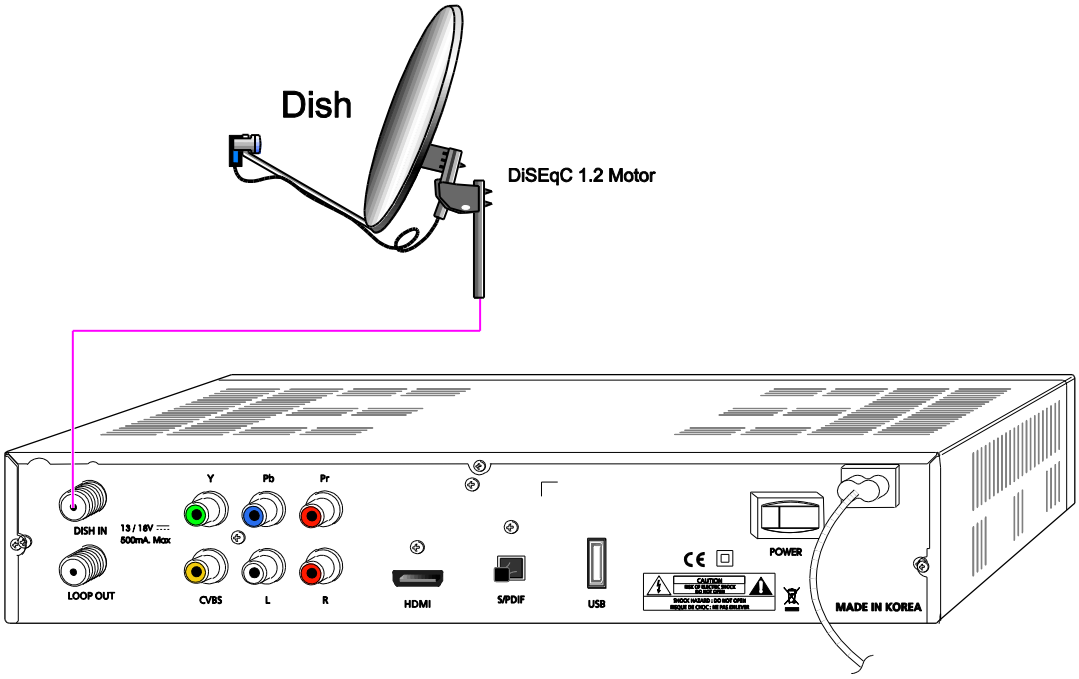
<Fixed Dishes Using a DiSEqC switch>

Connect the output of DiSEqC 1.0 to DISH IN of the receiver.



<Moved Dish Using DiSEqC 1.2>

Connect the output of DiSEqC 1.2 to DISH IN of the receiver.



4. Menu Overview

4.1 Menu Instruction

Press the MENU button to display the menu. You can select the sub menu using ▲/▼/◀/▶ button. The selected sub menu becomes highlighted.
When you have selected the sub menu you want, press the OK button.
When you want to return to the previous menu, press the EXIT button.
When you want to return to the live screen, press the Menu button.

4.2 Menu Help

In the menu, short information is displayed at the bottom of the screen.

: Using ▲/▼ button.
: Using P+/P- button.
: Using ◀/▶button.
: Using OK button.
: Using Opt, A/V+, Fav button.
: Using EXIT button.
: Numerical button or ◀ Button.

4.3 Menu Structure

In the menu, short information is displayed at the bottom of the screen.

Installation

- Dish : Select the dish and LNB Settings for channel search.
- Auto Scan : Search the channel of the selected satellite automatically without inputting the special parameters.
- Manual Scan : Search the channel manually with user's inputting parameters.
- Transponder Edit : Delete, edit, and add satellite or transponder parameters.

Option

- TV Output : Select the video or audio output.
- Language : Select the display language, audio language, and subtitle language.
- Time Setting : Set the current time.
- Parental Control : Change the password and select the censorship classification
- OSD Display : Setting OSD display time and transparency.

Channel

- Sorting : Sort the channel by Transponder, Network and CAS.
- Reservation : Reserve the channels you want to record at your desired time.
- Delete : Delete the channels such as Favorite, TV/Radio CAS, etc.

Advanced

- Reset Factory Default : Restore the receiver to the default values.
- OTA : Upgrade the receiver into the latest software version.
- USB Transfer : Transfer the channel data or the system software between receiver and USB drive.
- DivX Key Registration : Register the initial DivX Key
- DivX Key Deactivation : Deactivate the registered DivX key

Status

- Information : Check the version of satellite receiver.
- PowerSave Mode : Select the power save mode or not.
- CI Slot 1 : Check the smartcard information of Slot 1.

PVR

- HDD Information : Check the capacity of HDD
- Format HDD : Format HDD permanently
- Demount HDD : Use this function when you safely remove the external HDD from the STB.

5. Menu Operation

5.1 First Installation

You can install the receiver using First Installation for your convenience.

'First Installation' allow you to set your receiver using simple procedure.

1. Select the desired language using the ▲/▼ button.
2. Press the OK button to confirm and go to the next step.

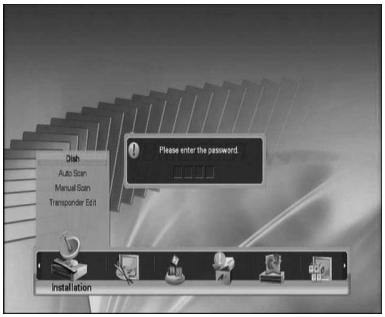
1. Select the desired antenna power using the ▲/▼ button.
2. Press the OK button to confirm.

- In step2 if you select Load Astra1 or Load Hotbird, you can make Default channels. Else if you select Scan Others, you can choose other satellite and go to the next step.

5.2 Installation

5.2.1 Dish

1. Press the Menu button to display the main menu.
2. Press the OK button on the sub menu. The password pop-up window appears. All sub menus such as Dish, Auto Scan, Manual Scan, and Transponder Edit on the Installation are locked by password. The default password is " 0000" .



1. Use the ▲/▼ button, you can move upwards and downwards in this mode. In any item, such as Dish, Satellite, Transponder, etc. if you want to check the detail view, use the ◄/► button.

1. Press the ◄/► button, the right screen shows the pre-selected 32 satellite lists.
2. Select the desired satellite, and press the OK button. Then satellite column changed by the desired satellite name.
3. If you can't find the desired satellite, select any satellite and press the OK button.

1. Press the ◄/► button to watch the satellite in the pre-programmed lists. Press the OK button to replace the current satellite with the selected satellite.

1. Press the ◄/► button, the right screen shows the transponder lists.
2. Press the OK button to select other transponder. If you select one of the alternative satellite names, the transponder list is changed automatically according to the selected satellite name.

1. Select one of the LNB Power types using the ◄/► button. You can select LNB Power value as 13/18V normally or if the distance between antenna and receiver is further than 60m, you can select LNB Power value as 14/19V.

1. Select the LNB Type value. If you have selected User Single or User Dual, enter LNB frequency value directly, and press the OK button. If you select LNB Type value as 9750/10600, 9750/10750 or User Dual, 22KHz value is fixed to auto mode, in other case you can select a value depending on usage of 22KHz tone switch box.

1. Select Switch Type if used.
2. If you use a DiSEqC 1.0 switch, select DiSEqC on the Switch Type.
3. Select one of the DiSEqC inputs from the Option.

1. Select Switch Type.
2. If you use a DiSEqC 1.1 switch, select SMATV on the Switch Type.
3. Enter a value with the numeric key. (950~2150).

1. Select Switch Type.
2. If you use a DiSEqC 1.2 motor, select the Motor on the Switch Type.
3. Change position of your Motor through the Option.

DiSEqC 1.2 Options :

- Move West-East : Press the ◀/▶ button to move the motor.
- Store Position : Press the OK button to save the current position.
- Go to Position : Press the OK button to move the motor to the stored position.
- Go to Reference : Press the OK button to move the motor to the 0 position.
- Set West Limit : Press the OK button to fix West limit.
- Set East Limit : Press the OK button to fix East limit.
- Enable Limit : Press the OK button to change the limit.

(Set West Limit & Set East Limit can be available with Disable Limit status)

1. Select Switch Type.
2. If you use a USALS motor, select from the Switch Type using the ◀/▶ button.
3. Change position of your USALS motor through the Option.

- Go to Position : Press the OK button to move the motor to the position calculated by the longitude and latitude.

1. “ Jump To” allows you to go to the Auto Scan or Manual Scan mode directly.
2. Select “ **Auto Scan**” or “ **Manual Scan**” and press the OK button.

5.2.2 Auto Scan

You can search the channels offered by the satellite for which your antenna has been configured.

1. Select the satellite for scanning using ▲/▼ button and press the OK button.
2. The check mark indicates which satellite has been marked for scanning.
3. Press the ◄/► button, select scan option using ▲/▼ button, and press the OK button.
4. If you want to scan the satellite move to “ **Start Scan**” and press the OK button.

1. Select Free+CAS or CAS using the ▲/▼/◄/► button.
2. Select the kind of CAS using the ▲/▼ button.
3. Press the OK button.
4. If you want to scan the satellite move to “ **Start Scan**” and press the OK button.

1. The left window shows TV channels and the right window shows Radio channels during the scanning process. White channel names are new channels downloaded to your receiver. Black channel names are already existing channels.

1. If you press the OK button when scanning for channels, pop-up window appears.
2. When you complete scanning for channels, a similar pop-up menu appears.
3. If you want to save the updated channels, select ‘ Yes’ .

5.2.3 Manual Scan

1. Change to the specific values you want to scan.
2. Press the OK button to start the manual scan.

- Dish : The target satellite for the manual scan.
- Frequency : The frequency of the transponder you want to find manually.
- Polarity : The polarity of the transponder you want to find.
- Symbol Rate : The symbol rate of the transponder you want to find.
- Modulation : The selection of modulation(DVB-S QPSK, DVB-S2 QPSK and DVB-S2 8PSK)
- Pilot : The DVB-S2 parameter (DVB-S2 modulation mode only)
- Code Rate : The code rate of the transponder you want to find.
- Scan Mode : In the Free Channel mode, the receiver scans all channels without scrambled service.
- Service Type : The selection of TV, Radio and TV&Radio.
- Network Search : When enable, the receiver searches for more transponders using the network index table.
- PID Search : Search using Auto PID, Manual Dec, Manual Hex.

1. When you select Manual Dec option, a pop-up menu appears.
2. Enter the value of Video PID, Audio PID and PCR PID with numeric keys.
3. Press the OK button to scan PIDs or press the OK button to make the pop-up menu disappeared.

1. When you select DVB-S2 Modulation (DVB-S2 QPSK & DVB-S28PSK), you can see " Roll off" menu at the below.
2. " Roll Off" is the value of the transponder you want to find, enter the value of " Roll Off" with the red Opt button.
3. Press the button to make the pop-up window disappeared.

5.2.4 Transponder Edit

1. Press the Opt button to select the satellite in the left screen or the transponder in the right screen.
2. Select one of Delete, Edit or Add from the pop-up window. (The satellite and transponder cannot be deleted if the channels for that satellite have already been downloaded)
3. If you press the OK button, the current changing state will be saved and exit.

5.3 Option

5.3.1 TV Output Setup

1. Select the TV output options using the ▲/▼/◄/ ► button.
2. If you press the OK button, the changed state will be saved and exit.

- TV Screen : Select the screen format of your TV (4:3, 16:9).
- TV Screen Format : Select the screen format through your STB (Auto, Pillar box, Pan & Scan).
- Dolby Digital : If you set it to the enable mode, you can listen Dolby Digital audio in preference to other audio formats when the broadcasting contents are encrypted with Dolby Digital audio format.
- Digital Audio : If you set it to the enable mode, you can listen Dolby Digital audio through Dolby Digital decoder connecting with RCA output.

5.3.2 Language

1. Select the language options using the ▲/▼/◀/▶ button.
2. Press the OK button to change the selected language.

- Display : Change the language used in the OSD and Menus.
- Audio 1-2 : Change the language that you listen to audio in.
- Subtitle 1-2 : Change the language that you watch the subtitle in.

5.3.3 Time Setting

1. Setting current time using the ▲/▼/◀/▶ button.
2. If you press the OK button, current changing state will be saved and exit.

- Time Mode (TDT, USER).

  TDT : Receive the time from broadcaster.

  USER : Set the time directly by user.
- Offset : Set the time difference between GMT and the local time.
- Day light saving : Day light saving will work only in case of 'Enable' mode.
- Start day : Day light saving start day.
- End day : Day light saving end day.

5.3.4 Parental Control

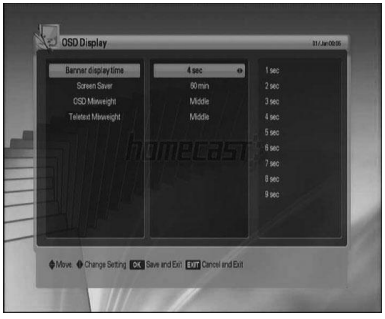
1. If you want to change the password, press the ◀/▶ button, following message requiring new password will be displayed.
2. Change the password into new one by numeric button.
3. To ensure your change, you are supposed to input a password once more.

1. Select your desired rating level using the ◀/▶ button.
2. Press the OK button to save and exit. Rating mode allows you to block channel according to the age level you have set.

- View All : All channels can be watched.
- 7 : Channels are blocked under the age of 7.
- 12 : Channels are blocked under the age of 12.
- 15 : Channels are blocked under the age of 15.
- 18 : Channels are blocked under the age of 18.

You have to enter password to watch the channels which is blocked by the age level.

5.3.5 OSD Display



1. Select the options using the ▲/▼/◀/▶ button.
2. If you press the OK button, current changing state will be saved and exit.

- Banner display time : Banner will disappear after setting time passed.(1~9).
- Screen Saver : Screen Saver is a function to protect your TV in case Radio status or in Menu. (Disable, 5, 10, 20, 30, 60, 120 Minutes)
- OSD Mixweight : Select the OSD transparent type. (Low, Middle, High).
- Teletext Mixweight : Select the Teletext transparent type. (Low, Middle, High).

5.4 Channel

5.4.1 Sorting

1. Select Sort Type using the ◄/► button.
2. If you press the OK button, current changing state will be saved and exit.

- Transponder : Channels are sorted into transponder order.
- Network : Channels are sorted into service provider order.
- CAS : Channels are sorted into Scramble channels and Free channels order.

5.4.2 Reservation

You can reserve a Channel at your desired time. In this mode, you can reserve channels up to 8.

1. Press the Opt button to edit the reserved channel. And then use the ▲/▼/◄/► button to the detail setting for your reservation.

5.4.3 Delete

You can delete channels. You can select not only Mode such as Channel and Favorite, but also Option such as TV, Radio and etc.

1. Select the Mode and Option you want to delete channels using the ▲/▼/◄/► button.
2. Press the OK button to delete and exit.

5.5 Advanced

5.5.1 Reset Factory Default

1. If you want to change the set into the default values, press the OK button. The following confirmation window will appear.
2. If you select 'Yes', the system will be reset to the primitive state like new receiver.

5.5.2 OTA

1. You can upgrade the latest software. The receiver checks whether the new S/W is released when you view channels or select this OTA menu.
2. If the new version is detected, the receiver will be rebooted automatically and the download screen will appear.

1. If any S/W can't be found, this following message will appear.

5.5.3 USB Transfer

You can transfer the channel data or the system software between a set-top box and a USB drive.

1. Select data type and the source & the target.

1. If the data exits in the target, the data will be removed and the new data will be replaced.

1. The window will appear on the TV screen if the data exists in the target.

1. If you select "Yes", the data will transfer. The window will appear while the data being transferred. You should keep USB connection until transferring is done.

1. The window will appear on the TV screen after data transferring is done.

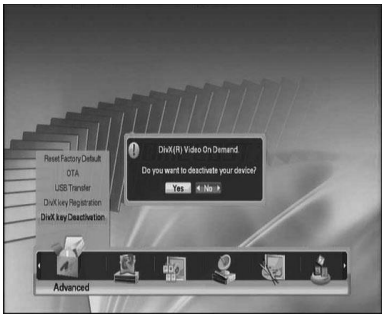
5.5.4 DivX key Registration

1. To watch your purchased DivX contents, you must get the DivX key of the STB. With the displayed DivX key on the screen, you can watch them. For more information, please visit the below website.

   http://www.divx.com/vod

5.5.5 DivX key Deactivation

1. To transfer your purchased DivX contents to another person, you must deactivate your initially registered DivX key. Otherwise, he can not watch the contents on his DivX certified device.



5.6 Status

5.6.1 Information

1. You can watch the system information such as Model ID, Hardware version, Software version, and Loader version.

5.6.2 PowerSave Mode

1. You can select the power save mode on or off. If you select the power save mode on, the power consumption will be much lower on the standby mode. However, the STB can not automatically check the new S/W on the standby mode.

5.6.3 CI slot 1

1. You can see not only Free To-Air services, but also scrambled services, using the Conditional Access Modules (CAM). If you want to see scrambled services, contact your service provider or distributor. Common Interface module and smart card depend on the service provider.

5.7 PVR

5.7.1 HDD Information

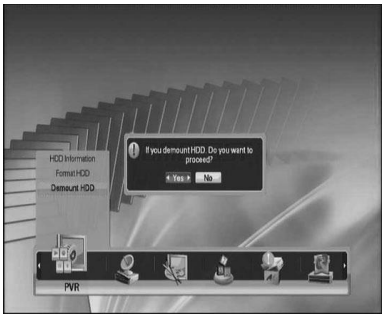
1. You can see the capacity of HDD such as Total size, Free size, Used size and the model name of HDD.

5.7.2 Format HDD

1. If you press the OK button, you can delete all files in HDD permanently.

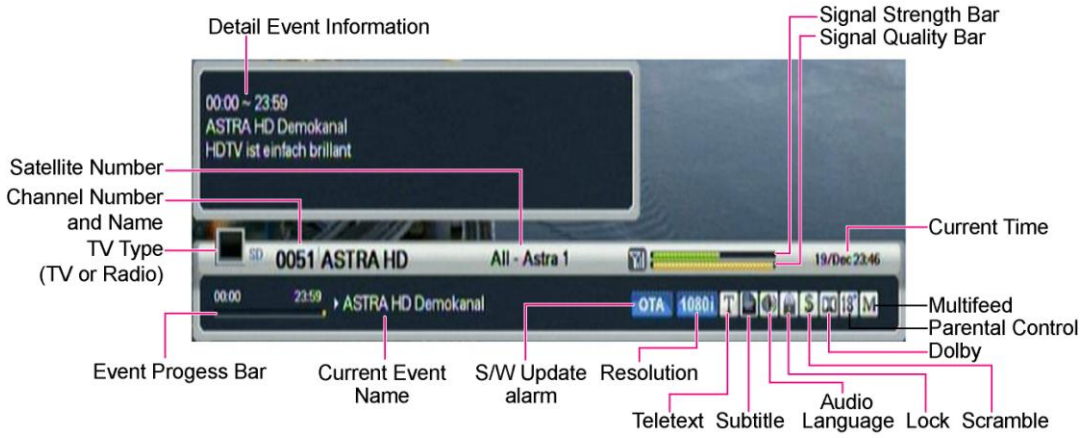
5.7.3 Demount HDD

1. If you press the OK button, you can safely remove the external HDD from the STBy.



6. Viewing General Information

6.1 Banner Information



1. Whenever you press the INFO button, the banner information window appears for a few seconds.

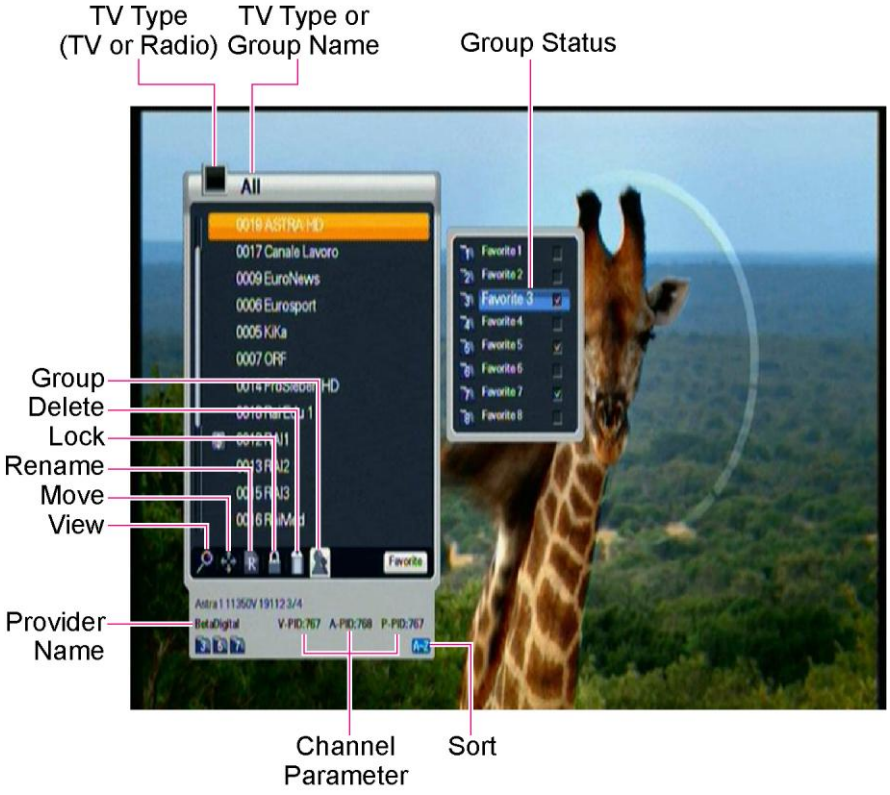
* You can also find the output resolution at the righ top side

1. If you press the INFO button again on the banner, the detail EPG window appears.
2. If you press the OK button, information and EPG window will disappear.
3. Press the P+- button and then you can change the channel.
4. If '▶' exists on the Banner, press the ◀/▶ button and then you can watch the next EPG.

6.2 TV & Radio changing

While watching TV or listening to Radio, you can select TV or Radio using the TV/Rad button.

6.3 TV or Radio Channel Lists



6.3.1 Watching Mode

While watching TV or listening to Radio, you can watch the channel list. Press the OK button to display the channel list. You can watch several icons at the bottom of the channel list. Each icon has a special and convenient function for user. If you want to change the mode, press the Opt button to go to the desired icon.

1. Press the OK button or A-Z button. If you want to view the sorted channel list, press the A-Z button.
2. Press the ▲/▼ button to move the cursor.
3. Press the OK button to watch the desired channel.
4. If you want to hide the channel list, press the button.

- When you want to sort the channels, press the A-Z button.
- When you want to change the TV/Radio mode, press the TV/Rad button.
- When you want to watch the next or previous channel page, press the P+- button.

1. If you know the correct channel-number to watch, press the number using the numeric button.

1. If you want to go Alphabetic move, you must change the channel list to the sorted status. To become the sorted status, press the A-Z button on the channel list or on the Live screen.
2. Press the numeric button. Then Alphabetic Pad will appear.
3. You can select the Alphabet using the numeric key(1-9)/▲/▼/◀/▶ button.
4. Press the OK button. If the selected channel by user input-letter not exists, there will be any change.

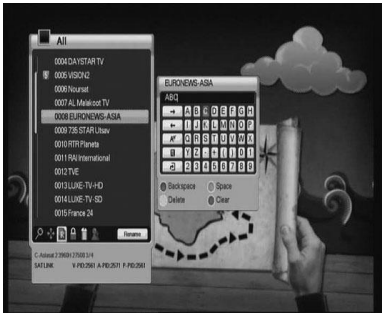
6.3.2 Delete Mode

1. Select the Delete Icon using the Opt button.
2. Select channel you want to delete using the ▲/▼ button. Press the OK button. Checked sign will be marked on the right side of the channel name.
3. Press the EXIT button to save and exit.

6.3.3 Move Mode

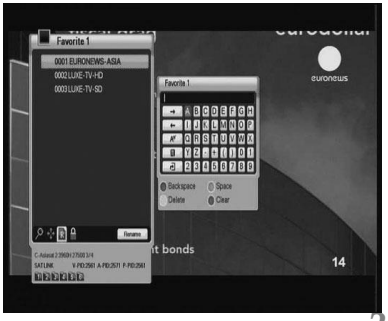
1. Select the Move Icon using the Opt button.
2. Select the channel which will be located in other position.
3. Press the OK button, and then a sign which indicates "move" will be marked on the right side of the channel name.
4. Set the new position using the ▲/▼ button.
5. If you want to complete moving channel, press the OK button. Then "move" sign will disappear on the right side of the channel name.
6. Press the EXIT button to save and exit.

6.3.4 Rename Mode



1. Select Rename Icon using the Opt button.
2. Select the channel to rename and press the OK button. And then a small editing name window will be displayed.
3. You can write each letter of the channel name using the ▲/▼/◄/► button and the OK button.
4. After renaming is done, select "Done"tab.
5. Press the EXIT button to exit.

You can change the Favorite group name.



1. Select the desired group.
2. Change the name of group according to above procedures.

<Remark>
It is impossible that Delete & Group function can be changed in grouping mode.

- Space ( ) : Write between two characters.
- Back ( ) : Delete characters.
- Caps ( ) : Change between caps and lower case letter.
- Done ( ) : To save the change.
- Cancel ( ) : Exit rename mode.

6.3.5 Lock Mode

1. Select Lock Icon using the Opt button.
2. Select the channel to be locked and press the OK button.
3. Set the password. Locking mark will appear on the left side of the Channel name. To cancel it, just press the OK button.
4. Press the EXIT button to save and exit.

6.3.6 Group Mode

You can make the group up to the 8th group. It can accommodate 100 Channels in one group. So you can get 800 favorite channels.

1. Select Group Icon using the Opt button.
2. Select the channels that you want to make favorite channel list.
3. Press the OK button, and then a small favorite Window will appear on the right side of the screen.
4. Choose the group number using the ▲/▼ button and press the OK button. To cancel it, just press the OK button again.
5. If you want to select other channel in current group, press the ◄/► button. And then highlighted channel will be showed on the channel list.
6. Press the OK button to set the group with selected group using the ◄/► button.
7. Press the EXIT button to save and exit.

6.4 Option

While watching TV or listening to Radio, press the Opt button. You can watch small pop-up window. You can select a option.(Audio Language, Teletext Language, Subtitle Language) If you want to change the option mode, press the ◄/► button.

6.4.1 Audio Language

1. Select the 'Audio' using the ◄/► button.
2. Press the ▲/▼ button to select a desired audio language.
3. Press the OK button to change the audio language.

6.4.2 Teletext Language

S100 100 3satText 05.11.00 18:05:39
3sat
Index A-Z
681-686
502 Liv Ullmann stellt in Lübeck ihren neuen Film vor
101 Nachrichten / Finanzen
200 Sport / Lotterien
300 Fernsehen / 330 TV-Guide
400 Wetter / 420/460 Touristik
500 Kultur
600 Unterhaltung / Jugend / Ratgeber / Wissen / 3satShop
Spaß / Wissen / Adressen 600
Horoskop / Spiele 601
Satelliten-News 624
Adressen / 3satShop 680
EURHOTELS:Hotelguide Europa 460

1. Select the 'Teletext' using the ◄/► button.
2. Press the ▲/▼ button to select a language.
3. Press the OK button.
4. You can watch the Teletext contents in the language if it is available.

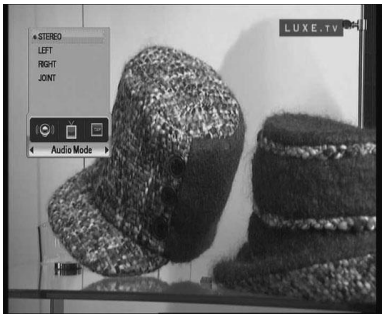
6.4.3 Subtitle Language

1. Select the 'Subtitle' using the ◄/► button.
2. Press the ▲/▼ button to select a language.
3. Press the OK button.
4. If the selected language is different from what is available, you can't watch the subtitle.

6.5 A/V+

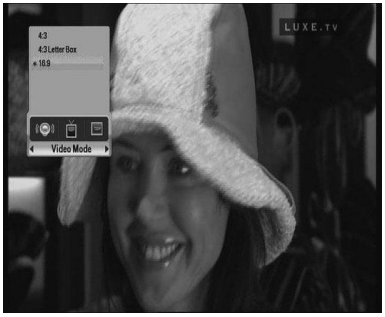
While watching TV or listening to Radio, press the A/V+ button. You can watch small pop-up window. You can select an option.(Audio Mode, Video Mode) If you want to change the option mode, press the ◀/▶ button.

6.5.1 Audio Mode



1. Select the 'Audio Mode' using the ◀/▶ button.
2. Press the ▲/▼ button to set the output direction for speakers.
   (STEREO, LEFT, RIGHT, JOINT)
3. Press the OK button to save and exit.

6.5.2 Video Mode



1. Select the 'Video Mode' using the ◀/▶ button.
2. Press the ▲/▼ button to set screen format of your TV.
3. Press the OK button to save and exit.

6.5.3 Video Format

1. Select the 'Video format' sub-menu using the ◀/▶ button.
2. Press the ▲/▼ button to set the video format (576I, 576P, 720P, 1080I and 1080P)
3. Press the OK button to save and exit.

6.6 Fav

While watching TV or listening to Radio, press the Fav button. You can watch small pop-up window. You can select a Favorite group.

6.6.1 Satellite

1. Select the 'Satellite' using the ◀/▶ button.
2. Press the ▲/▼ button to select a satellite.
3. Press the OK button, then you can watch the channel list of selected satellite.

6.6.2 Favorite

1. Select the 'Favorite' using the ◀/▶ button.
2. Press the ▲/▼ button to select a group.
3. Press the OK button, then you can watch the channel list of selected group.

6.7 A-Z

While watching TV or listening to Radio, press the A-Z button. You can watch sorted channel list.

6.8 EPG

Press the EPG button and the electronic channel guide appears if applicable.
Time intervals are arranged in a row and Channel lists are shown in a column.

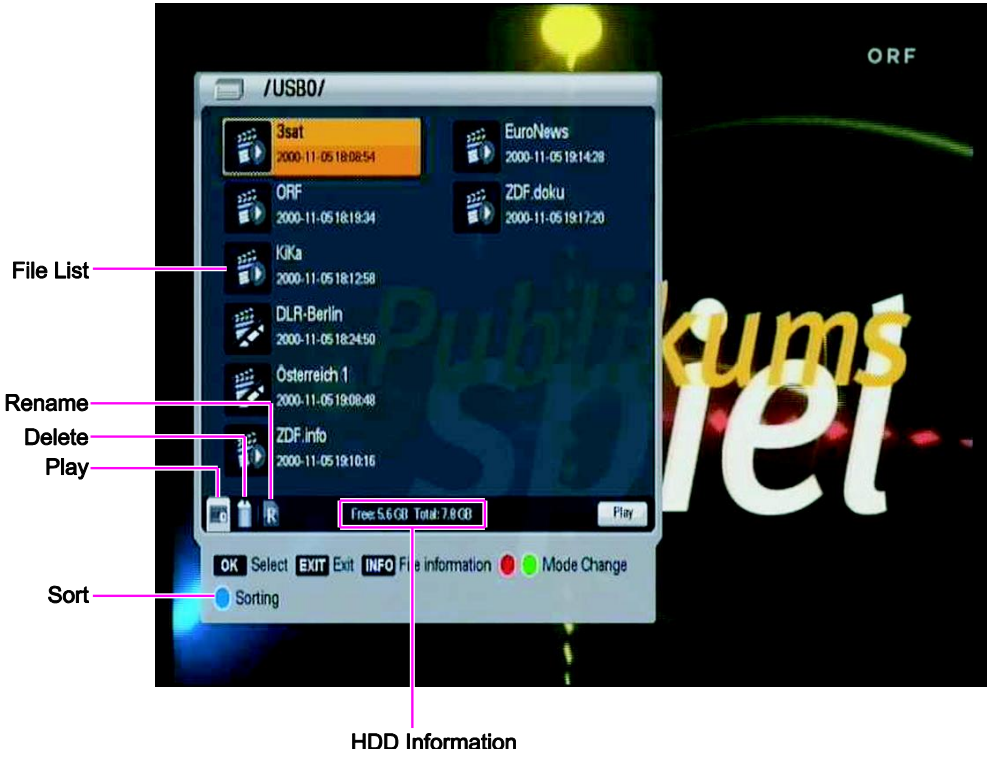
6.8.1 EPG Information

1. Press the ◄/► button to change time interval.
2. Press the ▲/▼ button to watch the guide about the channel, and then press the INFO button, the detail EPG window will appear.
3. Press the OK button to exit.

- Press the Opt button to reserve channels with event. If you want to know the detail description about reservation, refer to the reservation description in chapter 5.4.2.

7. PVR

7.1 File List



7.1.1 Playback mode

1. Select the 'Playback mode' using the Opt button.
2. Select the recorded file using the ▲/▼ button.
3. Press the OK button and then the file will be played.
4. Press the EXIT button to close the file list.

1. You can watch the detail file information.
2. Press the "INFO" button to watch the information for the selected file.
3. Press the EXIT button to hide the information.

7.1.2 Delete mode

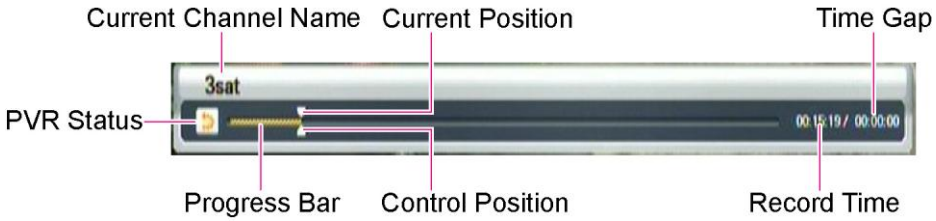
1. Select the 'Delete mode' using the Opt button.
2. Select the file you want to delete using the ▲/▼ button.
3. If you decide to delete the file, press 'Yes' on the pop-up window.
4. Press the EXIT button to exit.

7.1.3 Rename Mode

1. Select 'Rename mode' using the Opt button.
2. Select the file to rename and press the button. And then a small editing name window will be displayed.
3. You can write each letter of the file name using the ▲/▼/◀/▶/numeric button and the button.
4. After renaming are done, select 'Done' tab.
5. Press the EXIT button to exit.

7.2 PVR Banner

To access the PVR Banner, press the ◀/▶ button or the trick button such as PLAY(▶), FF(▶▶), REW(◀◀), SLOW(I▶).



- The description of icons

: Time Shift status

: Recording status

: Playback and trick status (색깔 변경 – 녹색)

: Time Shift playback

7.2.1 Time Shift

Time Shift function automatically records the current playing program temporarily.

1. If Time Shift function is set to enable in the PVR menu. Time Shift is always working on air and changing the channel. You can not stop Time Shift function in enabled mode except the case you choose to record the channel.

7.2.2 Record

1. Press the Record(●) button to record the channel you're watching.
2. Record mode can't be canceled by any control such as changing channel, etc. except pressing the STOP(■) button.

- Max duration time for recording is set to the default record time which set in Menu. If you want to change the duration, press the ◀/▶ button.

(Minimum: 5Minutes, Maximum: 10Hours)

7.2.3 Playback

1. Press the LIST button to open the file list.
2. Select the file you want to watch using the ▲/▼ button.
3. Press the OK or PLAY(▶) button.

1. Press the EXIT button to exit from the file list.
2. Press the ◀/▶ button or trick button such as REW, FF, etc., if you want to check the status of playing.

1. Press the numeric button(0~9) in Playback mode.
2. Each number means the ratio of the number to ten. If you press number 3, control position will be located 30% progressed position.

Jump in playback mode

1. You can locate the control position to the desired position using the ◀/▶ button.
2. By releasing the ◀/▶ button, playback continues from this position.

Bookmark

For your convenience, the bookmark function enables you to set bookmarks within the media file to continue or target a special position in media file.

1. Play the file you want to watch.
2. Move the control position to the favored position using the ◀/▶ button. Then press the MARK button and the white small bar will be placed at that position.
3. To delete the Bookmark, move the control position using the ◀/▶ button to the desired Bookmark and then the color of the control position turns black Just that time, press the MARK button.
4. Press the JUMP button and the control position will jump to the next bookmarked position and playback starts from this point.

- The maximum number of the Bookmark is twenty in a file.
- The first Bookmark exists at the starting position of the file.

7.2.4 FF/REW/SLOW mode

These functions are available in Playback mode and Time Shift mode.

<Fast Forward / Speed : x2, x3, x4 >

1. Press the FF(►►) button.
2. If you press the FF(►►) button continuously, speed will be increased up to 4 times.

- : Fast forward icon on Playback mode.
- : Fast forward icon on Time Shift mode.

<Rewind / Speed : x2, x3, x4>

1. Press the REW(◄◄) button.
2. If you press the REW(◄◄) button continuously, speed will be increased up to 4 times.

<Slow : x1/2, x1/4>

1. Press the SLOW(I►) button.
2. If you press he SLOW(I►) button continuously, speed will be decreased up to 1/4 times.

Additional Information

A.1 Troubleshooting

There may be various reasons behind receiver problems. Check the receiver according to the procedures described below.

If you can't solve your problem even after following the troubleshooting procedures, please contact the dealer. Do not open the receiver cover. It may cause a dangerous situation.

Symptom	Cause	Remedy
The front panel doesn't display any message.	The power cord is not plugged in.	Check that the power cable is plugged in to the wall outlet.
No picture or sound.	Wrong connection of the Audio/Video output of the receiver to TV.	Connect the Audio/Video output of the receiver to TV correctly.
	Wrong connection of the antenna.	Connect the antennal cable correctly.
	No or Bad signal message appears.	Check other device connected between Antenna and the receiver, or adjust the antenna position.
	Audio muting	Press the MUTE button
	TV Power off.	Turn TV on.
No picture.	The receiver can't receive the signal.	Check the antenna cable, replace the cable, or connect the cable to the receiver tightly.
	Incorrect values of some tuner parameters.	Set the values of tuner parameters correctly. Refer to the Installation menu.
No or bad signal.	The satellite dish is not pointing at the satellite.	Adjust the dish.
	Satellite dish is too small.	Change to a larger dish.
	The LNB is faulty.	Change the LNB.
The remote controller does not operate.	The batteries of the remote controller are not inserted or exhausted.	Check whether the batteries are inserted correctly in your remote controller.
Poor picture quality. **Less channels in scanning.**	Low LNB power or signal loss in cable.	Change the LNB power in dish set up menu to 14v/19v.

A.2 Technical Specifications

1. Tuner & Demodulator

Parameter	Specifications
Input Frequency Range	950MHz to 2150 MHz
RF Input Signal Level	-25 ~ -65dBm
RF Impedance	75 Ω
IF Bandwidth	55 Mhz/8MHz(Under 5Msps)
LNB Power	13/18DC, 14/19V +/-5%, 0.5Amax
LNB Tone Switch	22kHz +/-2kHz, 0.6Vpp +/-0.2V
DiSEqC Control	Version 1.2, Tone burst A/B
Demodulation	QPSK, NBC-QPSK, NBC-8PSK
Symbol Rate	1~45Msps/SCPC, MCPC

2. MPEG

Parameter	Specifications
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Input Rate	Max.15Mbit/s
Video	MPEG-2 MP@ML, H.264/AVC
Audio	MPEG-1/2 Audio Layer 1,2, Dolby Digital
Aspect ratio	4:3 or 16:9
Active Pixel	1920x1080i, 1280x720p, 720x576p, 720x576i
Audio Mode	Stereo, Dual channel, Joint stereo, Mono
Audio Sampling Frequency	32/44.1/48kHz

3. Connector

Port	Specifications
LNB IF input	Ftype, IEC 169-24 Female
LNB IF Loop-through Output	Ftype, IEC 169-24 Female
Video	RCA (CVBS) Component (YPbPr) HDMI
Audio	RCA (Audio L,R) HDMI SPDIF
USB2.0	Host 1ea

4. Conditional Access Interface

Parameter	Specifications
PCMCIA	1 Slot Common Interface

5. Environmental

Parameter	Specifications
Input Voltage	90~260VAC (SMPS)
Power consumption	Operation : 14W Standby : 1W (when selecting 'PowerSave Mode' on)
Operating temperature	0 ~ 45 C
Storage temperature	-10 C ~ +50 C
Storage humidity range	5 ~ 90% Rh Non condensing
Operating humidity range	10 ~ 85% Rh Non condensing
Weight	2.2Kg
Dimension (H x W x D)	55mm x 280mm x 240mm

A.3 Glossary of Terms

DiSEqC
Digital Satellite Equipment Control.

EPG
Electronic Program Guide. Software that enables viewers to navigate easily among the large selection of channels provided by the digital technology and choose the service they desire.

FEC
Forward Error Correction. Correction of faulty bits in the received signal.

LNB(Low-Noise Block converter)
The LNB is an electronic unit mounted on the satellite dish. It receives the signals reflected by the dish and converts them to signals that can be used by Satellite receiver.

Parental control
A feature that allows parents to lock programs that they consider unsuitable for their children. A locked channel or program can only be unlocked with the password.

PIN code
Personal Identification Number. A four-digit code that is used for locking/unlocking channels and programs, as in the parental control feature.

Polarization
Polarization allows several programs to be fitted into the same frequency band.
The signals from a satellite are transmitted either with linear (vertical or horizontal) polarization or circular (right or left) polarization.

Satellite dish
A dish-shaped antenna to receive signals from a satellite. The dish focuses the signals into the LNB.

Scrambled satellite TV program
Some satellite TV programs are transmitted in scrambled form. A CA module is needed to view such programs.

Symbol rate
Size of the digital package transmission.